2009 H1N1 Influenza: Is It Just the Flu?

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Connecticut Department of Public Health Infectious Diseases - Epidemiology Program October 7, 2009



"It's just the flu."

"It is and it isn't."

What is influenza?

- A sudden, fever-producing, respiratory illness
- Caused by an influenza virus
- Highly infectious
- Can spread rapidly from person to person
- Some strains cause more severe illness

than others



Symptoms of Influenza

- Generally of sudden onset
- Fever, plus cough and/or sore throat
- Can include headache, aching muscles, severe weakness, difficulty breathing, gastrointestinal symptoms



How influenza spreads

- Easily passed from person-to-person through coughing and sneezing
- Transmitted through respiratory droplets:
 - Breathing in droplets containing the virus, produced when infected person talks, coughs or sneezes
 - Touching an infected person or surface contaminated with the virus and then touching your own or someone else's face

Seasonal Influenza



- Annual outbreaks of the seasonal flu usually occur during the late fall through early spring in the US (October – April).
- Most people have some natural immunity.
- In a typical year, approximately 5 20 % of the population gets the seasonal flu and approximately 36,000 flu-related deaths are reported.
- Seasonal flu vaccine is available to prevent infection and illness

2009 H1N1 Influenza

MMWR

Swine Influenza A (H1N1)
Infection in Two Children —
Southern California, March–April
2009

On April 21, this report was posted as an MMWR Early Release on the MMWR website (http://www.cdc.gov/mmwr).







Outbreak at a School in New York City April 23, 2009



Illness short-circuits field trip

Wolcott pupils develop fevers, nausea in D.C.

BY MICHAEL PUFFER REPUBLICAN-AMERICAN

WOLCOTT — A four-day field-trip to Washington, D.C. for eighth-graders was cut short Friday after 26 students came down with "flu-like symptoms."

The annual trip has been a rite of passage for generations of eighth-graders getting ready to graduate from Tyrell Middle School. This year's trip included a three-night hotel stay and four days of sightseeing, including stops at the Smithsonian Museum and various monuments.

Four charter buses and a van set off with 209 students and about 22 chaperones Tuesday morning. By Wednesday afternoon, 11 stu-



JOSALEE THRIFT REPUBLICAN-AMERICAN

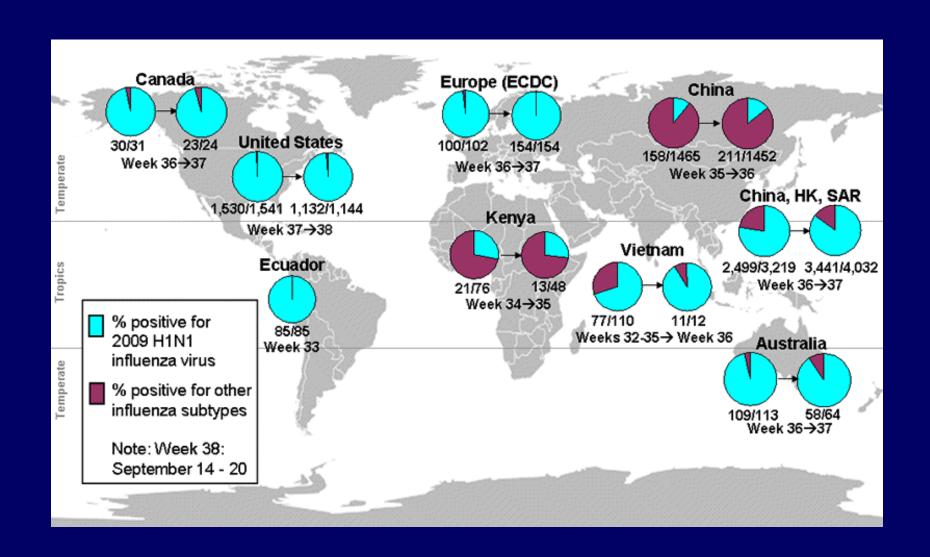
Sarah Whitney, 14, is welcomed by family members, from left, Laureen, cousin Michelle, 10, Kathy and cousin Nicole Whitney, 14. Sarah arrived at Tyrrell Middle School in Wolcott on Friday from a school trip to Washington, D.C., in which Nicole also participated. Sarah walked off the bus with a fever of 100.9 degrees, and a number of other students fell ill during the trip.

dents were feeling ill. All had ridden the same bus. Some had high temperatures and vomited.

Sick students stayed in their hotel Thursday morning as

See TRIP, Page 4B

Current Status- World



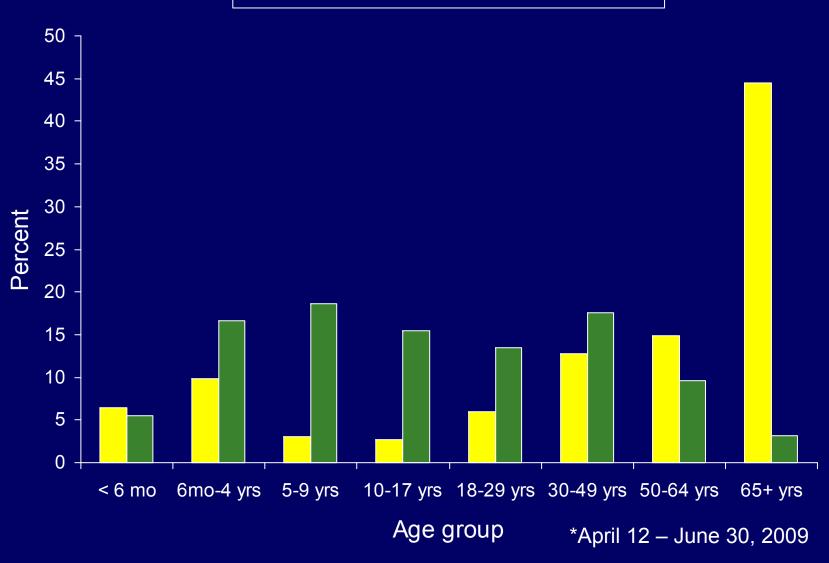
Current Status- United States

A Weekly Influenza Surveillance Report Prepared by the Influenza Division Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists* Week Ending September 26, 2009- Week 38 District of Columbia ☐ No Report No Activity Sporadic Local Regional Widespread Alaska Hawaii **US Virgin Islands** Puerto Rico

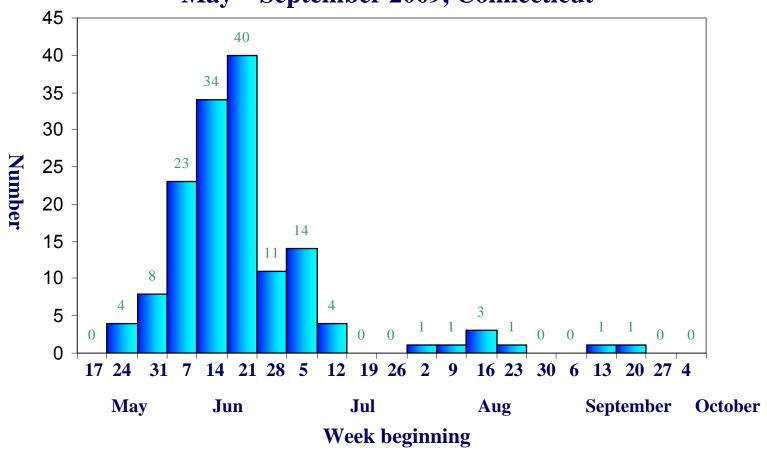
*This map indicates geographic spread and does not measure the severity of influenza activity.

Distribution by Age Group of Influenza Hospitalized Cases

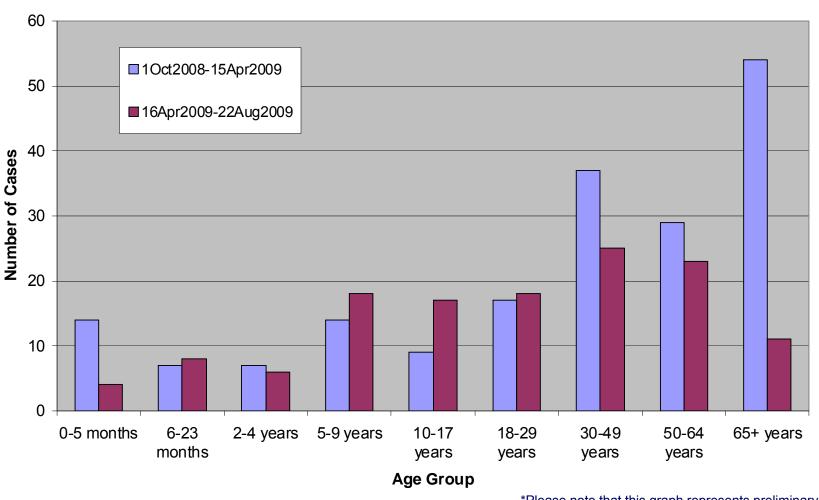
■ Seasonal 2007-08 ■ Pandemic 2009*



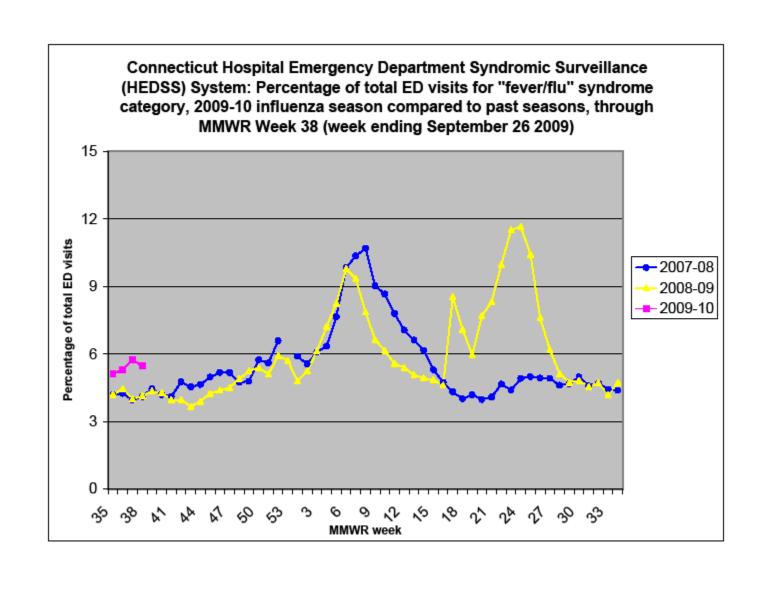
Number of Hospitalizations due to Pandemic (H1N1) 2009 Influenza A Infection by Week of Specimen Collection (n=146), May – September 2009, Connecticut



Age Distribution of Influenza Hospitalizations, New Haven County, 2008-09 (Pre-Pandemic A(H1N1) and Post-Pandemic A(H1N1))



*Please note that this graph represents preliminary surveillance data from the 2008-09 influenza season compiled by the Connecticut Department of Public Health and Connecticut Emerging Infections Program.



Diagnosis

- Mainly a clinical diagnosis
- Persons with mild illness do NOT need to be tested
- Rapid flu tests should be used with caution
- Decisions about treatment and prophylaxis should be made at the time of patient evaluation

Testing at the DPH Laboratory

- Currently only being done for the following:
 - Hospitalized patients with ILI
 - Healthcare workers with ILI

Antiviral Use



- Oseltamivir (Tamiflu) and Zanamivir (Relenza) are active against novel H1N1
- Both recommended for treatment and chemoprophylaxis
- Treatment course = 5 days; within 48 hours of symptom onset
 - Recommended for:
 - Hospitalized patients with suspected flu
 - Persons at increased risk for flu complications
- Chemoprophylaxis = 10 days; after last known exposure during infectious period of sick person

High Risk Groups

- Children < 5 years old (esp < 2 years old)
- Adults ≥ 65 years old
- Persons with the following conditions:
 - Chronic pulmonary, cardiovascular, renal, hepatic, hematologic, neurologic, neuromuscular and metabolic conditions
 - Pregnant women
 - Immunosuppression caused by medications or HIV
 - Children < 19 years on chronic aspirin therapy
 - Residents of nursing homes and long-term care facilities



THE CASE FOR KENO

When it comes to gambling in Connecticut, the "horses are already out of the barn ..." **Stan Simpson, Page A2**

AMERICA'S OLDEST CONTINUOUSLY PUBLISHED NEWSPAPER
READ BY 800,000 CONNECTICUT RESIDENTS EVERY WEEK IN PRINT AND ONLINE



SATURDAY 6.6.09 >> 1 *

SWINE FLU AND THE SCHOOLS

To Close, Or Not To Close?

Virus Poses Tough Choices For Officials At End Of Academic Year

By ARIELLE LEVIN BECKER

The early days of the swine flu outbreak brought a rash of school closings.

Then, with signs that the virus was milder than initially feared, schools reopened and the closures stopped.

Now the H1N1 virus is doing what flu viruses usually do: spread. So far,

480 state residents have had confirmed cases of the virus. Most have been mild, though one person died and five others were hospitalized.

And this week, schools began closing again — an elementary school in Hamden where more than 15 percent of the pupils had flu-like symptoms, and a middle school in Wolcott where more than 200 students were absent.

ON THE WEB
For more information about the

swine flu, visit

courant.com/swineflu

It's not yet clear whether school closings will remain relatively rare or whether more will close before summer break begins. As the end of the school year approaches, closures could become more problematic, with finals, graduations and 180-day

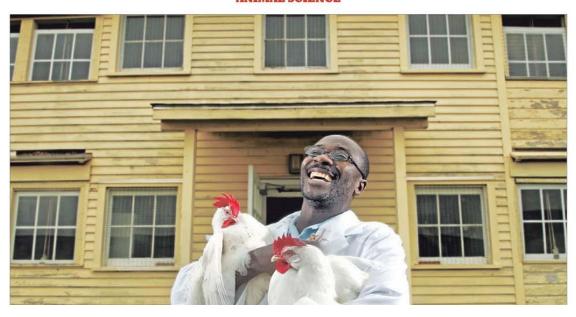
requirements to contend with.

While Wolcott and Hamden closed schools this week, West Hartford and New Haven kept schools open after being affected by swine flu because local health and school officials did not forecast problems.

That, in part, reflects changes in the reasons schools are closing. While state and federal officials

TOUGH, A4

ANIMAL SCIENCE



Hartford Courant

GROUNDED



Current Status 2009 H1N1 Vaccine

- DPH has enrolled interested healthcare providers
- Local health departments will work with towns/schools to determine need/feasibility of mass vaccine clinics
- Priority groups for vaccination based on vaccine supply
- Seasonal influenza vaccine should be encouraged for all



Vaccine Priority Groups

- Pregnant women
- Caregivers/contacts to children <6 months old
- Healthcare and EMS personnel
- All persons aged 6 mos-24 years
- Persons 24-64 years old at increased risk for flu complications

H1N1 Vaccines

- Licensed for use in the same populations as each manufacturer's seasonal influenza vaccine:
- Inactivated, intramuscular
 - Sanofi pasteur: ≥ 6 months of age
 - Novartis: ≥ 4 years of age
 - CSL: ≥18 years of age
- Live Attenuated, intranasal
 - MedImmune: 2-49 years of age (intranasal spray)

FOR IMMEDIATE RELEASE October 1, 2009

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Governor Rell: State To Begin Receiving First Shipments of H1N1 Vaccine Next Week

Initial Supply of 20,000 Intranasal Doses Will be Available for Children Ages 2-4 Years Old

Governor M. Jodi Rell today announced that an initial shipment of 20,000 intranasal H1N1 vaccine doses is expected to arrive in the state next week. The Governor also announced the state is launching a public H1N1 hotline on Monday, October 5.

"Prevention and preparation are essential in mounting an effective statewide response to the swine flu as we head into this flu season," Governor Rell said. "The state Department of Public Health has signed up hundreds of doctors, nurses and other providers to administer the vaccine once it arrives. We can begin protecting thousands of our residents with this initial shipment."

Flu Hotline: 800-830-9426

The state Department of Public Health says the more than 1,500 providers who have registered with DPH have put in their orders for the intranasal vaccines. After the initial shipment of intranasal vaccine, the state is expected to receive more than 500,000 doses of both the injectable and intranasal H1N1 vaccines by mid-October and then several thousand more in weekly shipments thereafter.

Swine Influenza History in US



Guillain-Barre Syndrome (GBS) Surveillance

- GBS was associated with influenza vaccine during the vaccination campaign in 1976
- Concerns for similar risk with new H1N1 vaccine
- Sentinel surveillance to be performed among 10 EIP sites nationwide
- In addition to other adverse effect reporting systems in place for vaccinations



Between a virus and a hard place

Complacency, not overreaction, is the greatest danger posed by the flu pandemic. That's a message scientists would do well to help get across.

amned if you do, damned if you don't. The emergence of a new, swine-flu-related H1N1 strain of influenza in people in North America, with sporadic cases elsewhere in the world, has left the US Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia, and the World Health Organization (WHO) in Geneva in an unenviable position.

For more than a week now, these two agencies have been holding daily media briefings to keep the world informed about the rapidly unfolding story. There is ample reason for concern: a new flu virus has emerged to which humans have no immunity, and it is spreading from person to person. That has happened only three times in the past century. The pandemics of 1957 and 1968 were mild in most

of falsely reassuring officialese that has too often accompanied past crises. As Peter Sandman, a risk-communication consultant based in Princeton, New Jersey, aptly puts it: "Anyone who's paying attention gets it that we just don't know if this thing is going to fizzle, hang in abeyance for months, disappear and then reappear, spread but

stay mild, replicate or exceed the 1918 catastrophe, or what. The reiteration of uncertainty and the insistence on what that means — e.g., advice may change; local strategies may differ; inconsistencies may be common — has been almost unprecedentedly good."

"The risk is not hyping the pandemic threat, but underplaying it."